

HOW TO DETERMINE THE PRESENCE OF INTESTINAL PARASITES

Darling (Société de Pathologie Exotique, May 10, 1911) describes two simple methods for determining the presence of intestinal parasites, especially the oxyuris, *Ankylostoma duodenale* and the *Strongylus stercorale*.

The first method consists in mixing a small portion of the feces with sterile water in a Petri dish and incubating at 37 degrees for twenty-four hours.

The second method is based upon the separation of the ova by means of centrifuging. The specimen is shaken vigorously in a test tube with sterilized distilled water, then centrifuged after calcium chloride has been added. The supernatant fluid is then examined for the ova.—(V. A. L., in *La Tribune Med.*, Mch., 1912.)

EXAMINATION OF SPUTUM FOR TUBERCLE BACILLI

Many methods have been tested by which sputum may be liquified and the bacilli precipitated, and the use of the centrifuge and filter dispensed with. The following are presented by Nemmser and Martos-Lissowska (*Deutsch Med. Woch.*, Sept. 14, 1911; p. 1697);

(1) *Alkaline trypsin digestion.*

To 0.1 cc. of trypsin and 5 cc. of a 0.4% sodium hydrate solution are added 5 cc. of sputum. Shake the mixture with the addition of a few drops of CHCl_3 and incubate at 37° C for 24 hours. Then there will be found beneath a clear supernatant liquid, a *compact* deposit, which can be readily removed and stained.*

(2) *Acid trypsin digestion.*

As above; except that 0.4% HCl is substituted for the soda solution, and no CHCl_3 need be added.

(3) *Oxidation.*

To 5 cc. of sputum 5-10 drops of perchloric acid— HClO_4 —and 5 cc. of water are added. This is incubated, and treated as before. Instead of the perchloric acid, 0.5 gm. of potassium chlorate and 5 cc. of 0.4% HCl may be substituted.

*Much's method of sputum staining is very valuable for all suspected cases of phthisis in which no tubercle bacilli are found by the usual methods of examination. This consists of treatment with anilin gentian violet for 48 hours and then with Gram's solution. By this means non-acid fast forms of tubercle bacilli, which fail to retain the dye under Ziehl's process, may be seen. See Roepke, *Deutsch Med. Woch.*, Oct., 1911, p. 1937, or J. R. A. and Med. Corps, Mch., 1912, p. 357.

The sediment obtained by these methods is more abundant, and can be fixed to the slide more easily than that which is deposited by antiformin. Tubercle bacilli were found by these methods 21 times in 300 examinations, in which they would otherwise have escaped detection.

DETECTION OF TYPHOID BACILLUS IN WATER

A method is reported (Lenke: *Deutsch Med. Woch.*, Sept., 1911; p. 1698) based on the fact that the bacilli are inhibited to a less degree by a strongly saline fluid than are water bacteria. Add 3-5% sodium chloride to peptone broth of + 10 to + 25 acidity to phenolphthalein. He prepares a watery solution of malachite green Merck Ia, 1 in 120: 0.2 cc., 0.3, 0.5, 0.7, 1.0, 1.4 cc. of this are mixed with quantities of 100 cc. of the salt broth. 15 cc. of each are placed in tubes, which are then inoculated with the suspected water. He has recovered the typhoid bacillus in 60 experiments after artificially contaminating the water,—in one instance when only 2 typhoid germs were introduced.

BUTTERFLY SCALES

B. Braman of the N. Y. Micros. Soc. proposed the following excellent method in 1881:

Dissolve 1 part of Anthony's "French Diamond Varnish" in 2 parts pure benzole. Apply a drop or two of the solution to a slide. In a few seconds, or as soon as varnish has set, press the wing of the moth or butterfly gently upon the slide and then carefully lift it away. The transfer of the scales shows a beautiful natural arrangement on the wing. Make a shallow cell around and apply cover. Canada balsam must not be used, as it disarranges the object.

CINNAMON OIL FOR EXAMINING ROUGH MINERALS FOR INCLUSIONS, FLAWS, ETC.

By applying a few drops of the oil to the surface of a transparent mineral, it is possible to examine the interior for inclusions, flaws, etc., without grinding the surface flat. Sand can also be examined for inclusions under the microscope.

ARRANGING AND MOUNTING SCALES OF INSECTS AND DIATOMS, ETC.

Use liquid gelatin thinned with an equal volume of 50% acetic